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ABSTRACT

This document explains the need for a Specialist in Continuing Education (SCE), outlines the expected rcle and responsibilities of an SCE, and describes a program being developed tc train SCE's. The SCE is envisioned as a teacher educator who will work with inservice teachers in small groups in a variety of ways to ccntinually improve their professional abilities. He will be responsible fcr coordinating these training activities with both administrators and teachers in order to determine ccoperatively appropriate ccntent. The prcgram fcr training SCE's includes study of gcal establishment methodology, data collection methcdology, human relations, resource methcdclogy, group functioning, and administrative methodology. The document includes a detailed schedule for developing and field testing the SCE training program. When completed, the program will be made available to user agencies--schccl systems, colleges of education, etc.--as a complete package. (SP 004 953 reports a consultants' assessment of the program.) (RT)

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PRELIMINARY VERSION OF THE BASIC PROGRAM PLAN

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Program I:

SPECIALIST IN CONTINUING EDUCATION

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Contract No. OEC-3-7-061391-3061

TO:

DIVISION OF EDUCATIONAL LABORATORIES
BUREAU OF RESEARCH
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September 15, 1968

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September 15, 1968

Mr. Richard McCann
Chief, Laboratory Branch
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400 Maryland Avenue, S.W.
Washington, D.C. 20202

Dear Mr. McCann:

This document represents the current version of the Basic Program Plan for Program I: Specialist in Continuing Education, as prepared since our program reorganization in February 1968. The present draft represents our first attempt to integrate some of our experiences in the field test we conducted from July 1 to August 9, 1968, the suggestions we received in August from our Technical Panel, and the suggestions we received from you, Keith Acheson and Sarah Gideonse on August 27, 1968.

Next steps in the development of this plan will include 1) extensive staff discussion of the complete plan, followed by preparation of a further revision 2) circulation of the revised version to outside experts, such as those who have assisted the Laboratory as members of the Board of Visitors and the Technical Panel for Program I, and 3) preparation of a new version, which we expect to be completed around the first of February, 1969.

Sincerely,

David M. Jackson

David M. Jackson
Executive Director

DMJ:g

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I. FACTORS INFLUENCING PROGRAM SELECTION

Innovations in education all have one common objective, namely a better education for student. One of the most significant influences which operate in the instructional environment is the behavior of the teacher.[1] In order to influence constructively the behavior of large numbers of teachers, and hence the behaviors of learners, CERLI has selected the role of Specialist in Continuing Education (SCE) for a major investment of time and energies.

There are at least seven major reasons which have influenced this choice. Five are concerned with deficiencies in current educational practices: the failure of education to keep pace with developments in certain areas; the limited success of traditional methods of changing professional behavior; the trend to continuous preparation; the need for unique linking roles; and deficient application of scientific knowledge about attitude and behavior change. The following reasons deal with opportunities available to CERLI: the backgrounds and talents of CERLI staff and the resources available to CERLI.

A. Failure of education to keep pace with developments in certain areas.

Among the many areas in which significant developments have taken place during recent years, two have special relevance to the role of SCE. In both these areas in which productive changes must take place, schools generally have demonstrated serious inertia.

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[1] Edmund J. Amidon and John B. Hough, eds., Interaction Analysis: Research and Application, "Classroom Interaction and the Facilitation of Learning: the Source of Instructional Theory," John B. Hough, Addison-Wesley, Reading, Mass., 1967, p. 376.

1. Significance of personal and social needs.

Education has frequently been criticized for being depersonalized and unresponsive to personal and social needs.[2] The emphasis upon operational efficiency and upon curriculum reflects the higher priorities assigned to the cognitive domain. Hence, many summer workshops have been devoted almost exclusively to subject matter. Recent developments in the behavioral sciences, however, have called increasing attention to the affective domain and to the importance of interpersonal skills.[3] Human factors significantly influence learning; and, in themselves, the human elements are an appropriate subject for study. Furthermore, the development of teaching machines and other automated learning aids promises to liberate the teacher from routine tasks and create opportunities to deal more significantly with the human dimensions of learning. All too often, professional behavior seemingly does not reflect this awareness of the significance of personal and social needs.

2. Products of research and developmental efforts.

Appropriate research dealing with some of education's most pressing problems often does not exist. On the other hand, professionals do not utilize the products of research that has been done.[4] Professionals tend not to make use of data that are available nor do they attempt to

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[2]Arthur T. Jersild, When Teachers Face Themselves, Teachers College Press, Columbia University, 1955, p. 80.

[3]Ibid., p. 84.

[4]Ernest R. Hilgard, ed., Theories of Learning and Instruction, "A Perspective on the Relationship between Learning Theory and Educational Practices," E. R. Hilgard, University of Chicago Press, Chicago, 1964, p. 412.

incorporate new alternative behaviors into their professional activities. For example, programs in new mathematics have sometimes been adopted reluctantly or inappropriately, if at all. Hence, a wide gap between theory and practice, development and dissemination, research and application has developed.[5]

B. Limited success of traditional methods of changing professional behavior.

Many recognize the need for changes in education which will lead to a greater recognition of the significance of personal and social needs and to increased utilization of products of research and developmental efforts. However, to engage in a policy of change for the sake of change is equally as dangerous. When instituted merely for its own sake, change often occurs haphazardly, lacks guiding principle and does not integrate into the total educational process. Hence, changes often do not generate and achieve the degree of excellence hoped for.

Although traditional methods for developing professional excellence (e.g. graduate courses, workshops, institute days, meetings with curriculum consultants) have operated with some degree of success, they have been criticized for being piecemeal, often unrelated to daily classroom activities, divorced from local needs and time-consuming.[6] Furthermore, the methods may not as effectively deal with change as they sometimes appear.[7] Rather than offering a variation of one of

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[5] Ibid., p. 413.

[6] W. Earl Armstrong, "The Further Education of Teachers In Service," The Journal of Teacher Education, XIX: I, Spring, 1968, pp. 33-38.

[7] George W. Denemark and James B. MacDonald, "Preservice and Inservice Education of Teachers," Review of Educational Research, XXXVII:3, June, 1967, p. 240.

these traditional methods, CERLI seeks to offer a tested alternative to present programs and practices, together with a viable strategy for its use.

C. Trend to continuous preparation.

Perhaps the most widely utilized vehicle for influencing the professional behavior of teachers and other school personnel has been preservice programs of preparation in institutions of higher education. However, the major burden of educating teachers now seems to be shifting to the post-entrance years. This does not mean the continuation of more traditional inservice education, but rather the development of what is more appropriately called "continuous preparation," an obligation which employers increasingly are assuming.[8]

D. Need for unique linking roles (educational middlemen).

Both educational innovators and organizational theorists have recognized the difference between pure researchers and practitioners. In educational administration there has been an increasing awareness of the need for new roles in the area of applied research.[9] Neither universities nor other established educational agencies seriously compete to play such a linking role or to train other professionals to perform in such roles.

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[8]Edgar L. Morphet and David L. Jesser, eds., Cooperative Planning for Education in 1980, "What Lies Ahead," Laurence D. Haskew, Citation Press, New York, 1968, p. 48.

[9]Terry L. Eidell and Joanne M. Kitchel, eds., Knowledge Production and Utilization in Educational Administration, "Dissemination and Translation Roles," Ronald G. Havelock, University Council for Educational Administration, Columbus, Ohio, 1968, pp. 64-119.

E. Deficient application of scientific knowledge about attitude and behavior change.

A growing body of scientific research has increased our knowledge about the processes of attitude and behavior change.[10] These studies have been concerned with such factors as surface vs. lasting results of change, verbalized vs. internalized change, externally imposed vs. self-initiated change, individual and group factors contributing to change, source credibility, and acquiring conviction through active participation. Existing programs of professional development do not sufficiently recognize nor utilize empirically verified principles of attitude and behavior change.[11] The following principles seem most directly relevant to the role of the Specialist in Continuing Education.

1. Traditional supervision tends to be associated with appeals based on fear and threat. The resulting emotional tensions actually result in less conformity to the recommendations communicated.[12]

2. Individuals who are fearful or feel threatened are typically motivated to ignore, discount, or misinterpret the communication.[13]

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[10]Carl I. Hovland, et. al., Communication and Persuasion, Yale University Press, New Haven, 1953.

[11]Hilgard, op. cit., pp. 414-15.

[12]Hovland, op. cit., pp. 56-98.

[13]Ibid., p. 1.

3. Externally imposed change, as opposed to self-initiated change, may produce verbal conformity but generally yields less actual conformity.[14]

4. Communications which arouse anger or resentment tend to develop unfavorable attitudes not only toward the communicator but also toward the groups, enterprises, and goals with which he is identified.[15]

5. Learning depends on active interests, personal involvement, and relevance. Traditional supervision often assumes that the learner is passive and unmotivated. In traditional supervision, the sources of motivation are considered to be within the supervisor rather than within the learner.[16]

F. Backgrounds and talents of CERLI staff.

The 22 members of the professional staff have been recruited from a variety of educational institutions--elementary, secondary, higher education, and industry. They bring to the laboratory a wide range of experience in public and private education, government, and industrial training. Seven have earned doctorates. All who are working directly with Program I have had field test experience. From their backgrounds, they bring to CERLI unique competencies in small group work, the change process, development of innovative programs (such as Title III

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[14] Ibid., p. 11.

[15] Ibid.

[16] Ibid., pp. 27-28.

projects and the state gifted program), conducting teacher institutes and industrial training programs, developing and writing training systems, and implementing training systems in both educational and industrial settings.

CERLI has instituted two intensive inservice training programs to upgrade and to make the staff's skills more relevant to the developmental tasks of the laboratory. That there are deficiencies in the present staffing of the laboratory is recognized. With increased funding, CERLI hopes to be able to add personnel with such competencies as systems analysis, experimental design, dissemination strategies, etc.

G. Resources available to CERLI.

1. Institutions of higher education provide conceptual input, adjunct staff, research design and evaluation, sites for field tests, and opportunities to cooperatively disseminate developed products. Working relationships have been established with the following institutions of higher education: the Research and Development Center for Cognitive Learning at the University of Wisconsin, the Center for Instructional Research and Curriculum Evaluation at the University of Illinois in Urbana, the Center for Research in the Utilization of Scientific Knowledge at the University of Michigan, the National Institute for the Study of Educational Change at Indiana University, the College of Education at the University of Illinois at Chicago Circle, the Graduate School of Education at the University of Chicago, the Illinois Institute of Technology Research Institute, and the Department of Sociology at the University of Nevada.

2. Cooperating agencies (e.g. Title III Projects, etc.) are important sources of data as well as support for the Specialist in Continuing Education in entry and in functioning in his role. They provide sites for field tests, participants for pilot programs, and assistance in follow-up and evaluation. Agencies are working closely with CERLI in the following locations: the Training and Development Center and the Diagnostic Learning Center at Elk Grove; Joliet, Illinois; Waupun, Wisconsin; Charleston, Illinois; Marshall, Michigan; Gary, Indiana; and Chicago, Illinois.

3. CERLI is participating in an inter-laboratory program coordinating efforts dealing with various aspects of inservice education. The four laboratories working together in this project are CERLI, MOREL, UMREL, and NWREL. It is expected that this program will broaden the conceptual base of Program I, provide field test sites and potential users, and enlarge the range of content options at the disposal of the Specialist in Continuing Education.

4. Urban boards of education (e.g. Chicago, Gary, Milwaukee, Battle Creek, etc.) represent the widest varieties in community needs, institutional environments, and personnel. Thus, some of the most significant field test sites will probably be found in these settings. Furthermore, such sites provide important data on problems of entry and role institutionalization.

5. Review panels (e.g. the technical panel headed by Ronald Lippitt of the University of Michigan, and the CERLI Board of Visitors) assist in evaluating progress and problems in the

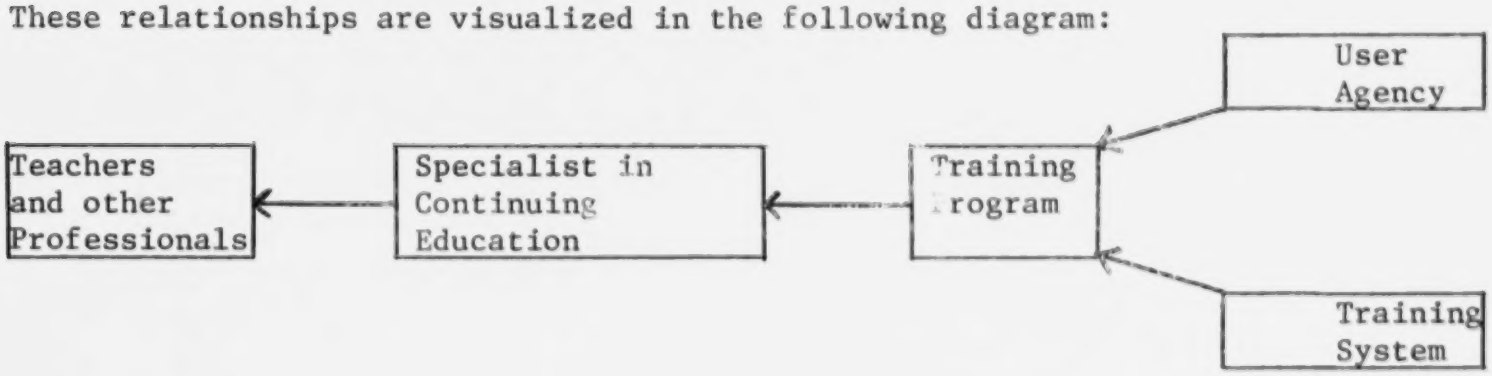
development of Program I, give input pertaining to research methods and conceptualizing, and provide linkage with other agencies and personnel.

II. EXPECTED OUTCOMES

CERLI envisions the development of a new specialized personnel role and its institutionalization within educational systems. In this role, a Specialist in Continuing Education (SCE) works with small groups of teachers or other professionals toward greater excellence in education. Through these group seminars, he serves as a catalyst to stimulate a process of continuing professional self-development.

The SCE will be trained in a program to be sponsored by a user agency (school district, college of education, Title III Cooperative, etc). The user agency will develop this training program from a prepared training system which will consist of a plan of instruction instituted and supported by both material and human resources.

These relationships are visualized in the following diagram:



In its developmental work, CERLI is not directly concerned with the learning behavior of students. At least in the earlier stages of development, the role of the user agency is less important. The primary focus is on the seminar behavior of participants, the professional behavior of the SCE, and on the end-product of the training system (a man-materials linkage). Ultimately, a user agency will conduct the training.

The specific objective of Program I is the development of a training system to be employed in a training program conducted by a user agency. The training program will enable the trainee to acquire the attitudes, knowledge, and skills to perform in the role of SCE. The training program's impact on the target population primarily effects development of self-confrontation skills, group seminar skills, and organizational skills. The SCE's impact upon seminar participants should result in an ongoing program of self-assessment and self-development. In turn, this program may significantly enhance the professional educator's ability to cope with the changing demands of education.

A. Ultimate criterion used to measure success and impact of program

1. Primary considerations

The most essential criterion is to be found in the professional behavior of participants in self-assessment seminars and activities conducted by the SCE. That there often is a difference between what teachers would like to do and what they actually do is axiomatic. This discrepancy between the ideal and the actual, as related to the instructional process, becomes a subject for self-confrontation in the seminar.

The SCE attempts to create a non-threatening, supportive environment in which self-assessment and self-improvement can take place. In the seminar, each participant--whether a teacher, administrator, or other professional--learns to do the following things:

a. Goals

Develop and define his own professional goals in operational (behavioral) terms.[17]

b. Data

Collect and analyze concrete data concerning the degree to which his professional behavior accomplished his goals. Data may take the form of video tape, a profile on a behavior classification system (e.g. Flanders, etc.), student scores, etc., but not general impressions nor feelings about what the professional did or did not do.[18, 19]

c. Self-confrontation

Compare his operational goals with the data which is fed back to him, identify and confront inconsistencies between the ideal and the actual, and resolve differences in the direction of improved career performance.[20, 21]

d. Resources

Select, evaluate, and implement educational innovations relevant to his professional goals.[22]

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[17]Robert F. Mager, Preparing Instructional Objectives, Fearon Publishers, Palo Alto, California, 1962.

[18]Edgar H. Schein and Warren G. Bennis, Personal and Organizational Change Through Group Methods, John Wiley & Sons, New York, 1965, pp. 41-43.

[19]N. L. Gage, et al., Equilibrium Theory and Behavior Change: An Experiment in Feedback from Pupils to Teachers, Bureau of Educational Research, University of Illinois, 1960.

[20]Leon Festinger, A Theory of Cognitive Dissonance, Row, Peterson and Company, New York, 1957.

[21]Wilbur Schramm, ed., The Science of Human Communication, "The Theory of Cognitive Dissonance," Leon Festinger, Basic Books, New York, 1963, pp. 17-27.

[22]Hilgard, op. cit., pp. 402-15.

e. Group support

Support, encourage, and assist other members of the seminar group in the processes of self-confrontation and initiating change.[23, 24]

f. Continuous self-development

Develop the capacity to continue the self-confrontation process independently of the SCE's influence.[25]

2. Secondary considerations.

At a future time when trained SCEs get a large number of teachers or other professionals to behave consistently in the manner described, CERLI hopes to undertake a broad-gauge correlation study to determine the impact of these behaviors upon other aspects of the educational context. To develop this design until the primary considerations are met however would be premature.

Ultimately, some of the long-range expected outcomes might include:

a. Greater excellence in education

(1) Increased receptivity of the professional and of the educational system toward innovative ideas concerning teacher behavior, instructional content and strategy, institutional methods, organizational structure and function, and other aspects of the educational process.

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[23]Dorwin Cartwright and Alvin Zander, Group Dynamics, "Arousal and Reduction of Dissonance in Social Contexts," Leon Festinger and Elliot Aronson, Harper and Row, New York, 1968, pp. 125-36.

[24]Carl Rogers, "The Necessity and Sufficient Conditions of Therapeutic Personality Change," Journal of Consulting Psychology, 21, 1957, pp. 95-103.

[25]Hovland, op. cit., "Retention of Opinion Change," pp. 241-68.

(2) Increased instructional effectiveness resulting from diminishing the gap between theory and practice so that what happens in the classroom more accurately reflects what is known about teaching and learning.

(3) Increased sensitivity and responsiveness of the educational system to the needs and problems of community, pupils, teachers, administrators, and educational installations.

(4) Improved relations and communication among pupils, teachers, administrators, educational agencies, and parent-community organizations.

(5) Continued self-assessment by professionals who apply their own standards to situations rather than simply comparing behavior with an arbitrary set of standards imposed by others.

b. Greater autonomy in education

Recent developments in curriculum and educational technology have coincided with contemporary interest in self-directed learning. Autonomous learners may feel frustrated by professionals who have not developed habits of autonomous problem-solving in their own behavior. The SCE will help professionals to behave more consistently with this trend toward more responsible self-direction in education.

c. Greater adaptability to change in education

Society is rapidly changing and will undoubtedly continue to do so at an even greater pace. Regardless of whether education initiates or follows change, change has vast implications for educational systems. Thus, the ability to deal creatively

with change may become one of the greatest talents a professional can possess. Participation in self-assessment seminars would help a professional to understand change, determine the need for change, select and evaluate alternatives, focus and implement change, and avoid the dangers of change only for the sake of change.

d. More widespread influence of inservice education

By means of the prepared training system, other developers (school districts, colleges of education, etc.) may replicate the training program. The inclusion of new professionals who begin the self-confrontation seminar process and the continuation of others who have had previous similar experience result in an additional accumulative effect.

B. Changes to be effected in target population

Obviously, not one but many different approaches must be tried to effect improvements in education. The SCE can play a significant role in giving focus and direction to change. In order to function successfully in the capacity of SCE, a trainee must acquire the appropriate attitudes, knowledge, and skills. A trained SCE can be recognized by what he knows and does and by the ways in which others perceive him.

Since the training system will be designed to prepare individuals to assume the role of SCE, the following role description is presented.

1. Functions

The SCE's behavior is the most tangible and therefore the most significant aspect of his role. Working with professionals

in small group seminars, the SCE uses a variety of approaches designed to effect change in behavior. The fact that seminars are scheduled within an educational system implies that administrative support for the program's organization and continuation first must be obtained. Thus, the SCE must learn certain skills relating to work with administrators as well as with other professionals.

a. Basic skills

The core of the training system for the SCE will focus on essential skills for conducting the self-confrontation process:

(1) Help professionals develop and define their own goals in operational (behavioral) terms. This will often be referred to as the ideal.

(a) The SCE should help professionals define their own training needs. In part, these may be defined by curriculum, the educational system, previous training and education, or a consideration of the changing role of the professional.

(b) The SCE should teach professionals the skills of being able to operationalize goals in behavioral terms so that achievements can be measured. Evidence that this has been accomplished will be found in the way in which professionals are able to develop and define their own goals.

(2) Help them collect and analyze concrete data concerning professional behavior, and also select an appropriate method of data collection. This data will often be referred to as the actual.

(a) The SCE should instruct professionals

in selecting and using mechanical skills by which reliable and valid data about professional behavior may be obtained. He may make use of new techniques or adapt older, better-known techniques. He also should be able to organize data thus obtained in a meaningful way so that comparisons with ideal behavior can be made.

(b) He should be familiar with a number of different types of evaluation instruments such as behavior classification systems, attitude check lists, audio video equipment, etc.

(c) He should be able to help professionals adapt techniques to different situations and invent new techniques and new combinations which may be more appropriate to a unique situation.

(3) Help them to compare their operational goals with the data which is fed back to them, to identify and confront inconsistencies between the ideal and the actual, and to resolve such differences in the direction of improved professional behavior.

(a) The SCE should promote a comparison of the dynamic interplay between the ideal and actual behavior so that a professional may realize his goal achievements and resolve his goal-actual discrepancies in the direction of productive change.

(b) Prepared confrontation materials may assist the process of self-confrontation. They may cover a wide range of experiences and situations (e.g. new mathematics, classroom behavior problems, black militancy, picketing by community organizations, etc).

(c) Any confrontation between ideal and actual behavior should be intra-personal rather than inter-personal (between the professional and another person).

(4) Help them to select, implement, and evaluate educational innovations relevant to their professional goals.

(a) The SCE should help the professional to select, practice, and implement new strategies of behavior (such as an innovative model of teaching). Role playing and microteaching may serve as methods of providing this type of support.

(b) The SCE should be able to relate processes to available research. The SCE should assist professionals in locating relevant resource material to help them solve their problems and reach their instructional or other professional goals. The SCE should read recent journals concerned with educational research and be familiar with on-going projects in this area. He should practice developing practical applications for research findings so that they will be meaningful to professionals. The objective is to incorporate new applications of research data into the professional behavior of seminar participants.

(c) The SCE should utilize a variety of content inputs. Through the use of a search area or a data bank, access to both printed and human resources must be provided. Curriculum consultants, educational psychologists, research and development centers, other regional laboratories, ERIC and others may provide avenues for the inclusion of sub-

stantial content into the program of self-assessment.

(5) Encourage them to support one another as they attempt to try out new behavior or to reach new goals and to draw upon the group's total resources in the process of problem solving.

(a) The SCE should utilize group process techniques to build a supportive climate and to generate a wide variety of ideas and solutions to problems. This climate of group rapport will support the group as members assist one another in practicing new behavior, collecting data, etc.

(b) It is recognized that the SCE will often deal with individual seminar participants on a one-to-one basis and in contexts other than the seminar itself. However, working with a professional on a group rather than an individual basis has the advantages of both economy and increased productivity.

(6) Help them to develop the capacity to continue the self-confrontation process independently from the SCE's influence.

(a) The SCE should encourage continuous self-evaluation by the professionals who apply their own standards to situations rather than simply adopting arbitrary standards imposed by others (even though, at times, this too may be necessary).

(b) The SCE should himself utilize the same self-confrontation techniques in assessing his own performance. He should establish goals for himself in behavioral terms and constantly collect data providing himself

with information on which to assess his own behavior. In this way, his behavior should be a model for professionals to use in self-confrontation.

b. Conditional skills

It is felt that the self-confrontation process may be carried out more successfully in the context of a group seminar rather than on an individual or a mass basis. Furthermore, group seminars can be neither scheduled nor conducted unless the program is installed and institutionalized in a school system. Hence, the SCE must acquire certain skills for working with small groups and with organizations.

(1) Small group skills

(a) The SCE should be able to generate a cohesive group whose members will provide support for one another in activities related to individual or group goals. Evidence that this has been accomplished may be in the form of member satisfaction and involvement. Willingness to continue or repeat the seminar experience might be a measure of cohesiveness. Change in communication patterns or sociometric choices also might be in the direction of more interaction.

(b) The SCE should work to develop group norms that are supportive of the goal of changing professional behavior and to discourage norms that are detrimental to experimentation and planned change. Evidence that this has been accomplished would be found in the actual behavior of group members. A high degree of experimentation and discussion of problems indicates that the norm has been successfully generated.

(c) The SCE should function as a

democratic leader of the seminar. To generate group decisions, the SCE will provide structure and guidance as he involves the group and their resources in accomplishing tasks. Thus, the group will perceive him as a leader who suggests and structures rather than determines the direction of the group's goals by imposing his own conclusions or points of view. However, the SCE cannot ignore his obligation, as a democratic leader, to introduce specific content areas for the group's consideration.

(d) The SCE should maintain open communications within the small group so that members feel free to openly and honestly discuss any problem with other group members and to direct suggestions or criticisms to the leader himself.

(e) The SCE should support the group goal and help the group to move in the direction of this goal. Without destroying the cohesiveness of the group, he should encourage activities furthering the group goal.

(f) The SCE should encourage a positive group attitude toward a concept of change which is productive not only for individuals but for education or society at large. Within the group, each member's attitude should reflect his positive and not merely token acceptance of change for change's sake. They should show a willingness to accept innovations and new types of behavior in their school and professional positions.

(2) Organizational skills

The role of SCE also is unique in its organizational relation-

ships. His influence is recognized as that of a "peer" rather than supervisor. He works directly with the teacher or other professional rather than for the administration (even though paid by the administration). Thus his efforts are directed toward improved professional competence rather than toward evaluation. In this new role, he must deal with specific problems of entry into the organization, installation of the program, and the institutionalization of his own role.

(a) The SCE should gain administrative support (understanding and acceptance) for the program. Evidence that this has been accomplished may be in the form of an administrator's acceptance and commendation of the program or in more concrete ways such as provision of funds for continuing or expanding the program.

(b) The SCE must schedule specific times, space, materials, and participating professionals for the seminar program. The SCE must schedule these meetings, obtain substitute teachers when necessary, and obtain resources needed for the meetings. If the SCE controls his own budget, he can execute these details more effectively.

(c) The SCE should maintain open lines of communication between himself, administration, teachers, and other professionals. This involves not only keeping the communication channels open but generating a feeling of trust so that teachers, administrators, and others feel free to express their attitudes and criticisms to one another in a non-threatening way.

(d) The SCE should gain community acceptance of the program. Evidence that this has been accomplished

involves assessment of the degree to which the community understands the aims and benefits of the program and the degree to which the community supports the program.

(e) The SCE must recruit professionals for the program by explaining the program in a way that enlists their positive support and involvement. The number of professionals who volunteer to participate in the program and the endorsement of professionals who do not immediately volunteer may reflect the SCE's promotional skill.

(f) The SCE should accept the responsibility for continuing development of the training program.

2. Cognitions

The SCE must have a cognitive understanding of the processes and techniques involved in his role behavior. Some of these understandings may be communicated to other professionals; some may act simply as a guide for the SCE's own behavior.

a. The SCE should understand a number of theoretical principles as they apply to his role. Some of the important major principles are learning theory, dissonance theory, interpersonal interaction, and a process of change.

b. The SCE should understand the theory and behavioral correlates of the technical input he introduces into the seminar. Some of the important major techniques are problem solving, the self-confrontation approach, operationalizing goals, use of models of innovative strategy, use of direct interaction scoring systems, and other self-evaluation instruments.

c. The SCE should understand the scientific

method which includes designing research problems, collecting data, and analyzing results.

d. The SCE should have an understanding of small group processes and research in this content area. He should have an understanding of such topics as the stages of development in group interaction, the characteristics of different types of groups, building group morale and cohesiveness, etc.

e. The SCE should have an understanding of styles and techniques of leadership together with the dynamic interrelationship of SCE and seminar group.

f. The SCE should have an awareness of the nature of organizational systems.

3. Perceptions

If a trained SCE is performing adequately in his role, he should be perceived in certain ways by those around him as a strong, professionally competent person who occupies a significant place in his school system. Through his attitudes and behaviors he should project the following image:

a. Believes in the necessity for change in the educational system.

b. Helps others improve by realizing their own professional goals.

c. Respects the autonomy and integrity of others; and regards administrators, teachers, and others as professionally competent and a source of expertise to be utilized in determining the direction of change for professional behavior.

d. Communicates effectively with openness, honesty, and sensitivity.

e. Orients his efforts to working with small groups.

f. Demonstrates the use of self-assessment in his own behavior.

g. Represents a model for problem-solving so teachers can learn by identification.

h. Believes in and applies the "scientific method" (i.e. gathering data, establishing validity, drawing implications, formulating hypotheses, and selecting alternatives) to evaluate behavior.

i. Acts as a supportive resource person who provides tested alternatives to current practices.

j. Represents the school system but not specifically as a representative of administration who functions in a supervisory or evaluative capacity.

C. Specific program objectives

The end product of this developmental effort is a training system. The training system, which coordinates both material and human resources, will be utilized by a user agency for developing a training program to enable an SCE to function in a new personnel role. In this capacity, the SCE will conduct small group seminars with professionals in the educational system to help them improve their career performance. In its aim toward self-initiated change and continued professional self-development, the seminar's end-product is unique. The training system's content will be directed toward the development of skills which are necessary to successfully perform in the role of SCE.

The following instructional units are amplified in the experimental program

of instruction outlined in the appendix to the basic program plan:

1. Orientation to the role
2. Goal establishment methodology
3. Data collection methodology
4. Self-confrontation processes
5. Resource methodology
6. Seminar group operation
7. Organizational and administrative methodologies

III. STRATEGY

A. Operating Assumptions

The strategies which have been selected to achieve the objectives are based on certain key assumptions about the context of the operation of Program I.

1. Assumptions about the role of SCE:

a. The role of the SCE should be a significant variation from traditional approaches to educational change. [26]

b. The SCE should provide a unique, intermediate linkage between theory and professional practices. [27]

c. The peer relationship (specialist-professional) is a more powerful vehicle for learning new behavior than an authoritative or evaluative relationship. [28]

2. Assumptions about learning programs for adult professionals:

a. The process of self-confrontation and self-assessment has more relevance when goals are defined in operational (behavioral) terms. [29]

b. Concrete, specific data are more meaningful than generalized feedback, feelings, or subjective impressions. [30]

c. Self-direction in learning produces changes in professional behavior which are more significant and more

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[26] Havelock, op. cit., pp. 111-12.

[27] Ibid., pp. 64-65.

[28] Carl Rogers, On Becoming a Person, Houghton Mifflin, Boston, 1961, pp. 31-57.

[29] Martin Haberman, "Behavioral Objectives: Bandwagon or Breakthrough," The Journal of Teacher Education, XIX:1, Spring, 1968, p. 92.

[30] Gage, op. cit.

lasting than externally imposed changes.[31]

d. Change is more likely to occur and be reinforced in the social context of small groups rather than on an individual basis.[32,33]

e. Innovations in professional behavior are more likely to be adopted when relevant to the achievement of goals.[34, 35]

f. The SCE should deal more directly with the affective or interpersonal aspects of professional behavior rather than with the cognitive.[36]

g. Cognitive dissonance, resulting from a perceived discrepancy between the ideal and the actual, is an important factor in motivating change.[37]

3. Assumptions about training systems:

a. Short term training (for example a weekend institute) is incapable of communicating a complex pattern of attitudes, knowledge, and skills.

b. A systems approach to professional self-development is more productive than isolated training efforts.

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[31]Ronald Lippitt, et. al., The Dynamics of Planned Change, Harcourt, Brace and World, New York, 1958, p. 197.

[32]Festinger, Cognitive Dissonance, pp. 208-09.

[33]Richard I. Miller, ed., Perspectives on Educational Change, "The Teacher as Innovator, Seeker, and Sharer of New Practices," Ronald Lippitt, p. 308.

[34]Ibid., pp. 317-18.

[35]Haberman, op. cit., p. 92.

[36]Rogers, op. cit., pp. 395-96.

[37]Festinger, op. cit., pp. 18, 177.

In some school systems, teachers may appear to have the highest priorities for inservice development, but the reinforcement or extinction of that training will depend upon the total school system. Hence the utilization of self-assessment seminars by a school district should not be limited to teachers. It is probable that the same basic approach would be equally relevant to board members, parents, administrators, community leaders, secretaries, custodians, etc. In any case the professional development of some members of the organization is dependent upon the total organizational development of the organization.[38, 39]

c. The objectives of Program I cannot be achieved apart from interaction with urban schools.

Activities which are under way and which are planned for the largest urban areas in the region, are an integral part of the development of Program I. Means are being devised to provide continuous interchange between the developmental work in the laboratory and the developmental work and the field testing.

Because the population of the United States is shifting from rural to urban and because these areas contain very large concentrations of children and youth, the laboratory is making a special effort to focus its program on urban schools.

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[38] Miller, op. cit., p. 310.

[39] Robert J. House, "Leadership Training: Some Dysfunctional Consequences," Administrative Science Quarterly, 12, March, 1968, p. 567.

Urban metropolitan areas are seen as important sites for field testing of CERLI products. In the training program for SCEs field testing is important not only for developing the basic role of SCE but also variations of that role which are necessary to adapt the training system to urban metropolitan schools. Urban field test activities represent a serious involvement in systems where most components can be related. Therefore urban schools become integrating sites where most of the activities in developmental work can be synthesized.

Developmental work in Program I also requires continuous interaction with school administrators. The training system must include ways of installing, implementing, and institutionalizing the role of SCE in urban as well as suburban and rural schools. In the large urban school, it is especially difficult to begin inservice programs with teachers. Access to teachers in any school system must be obtained through relatively complex administrative channels, which are even more complex in larger systems. Furthermore, administrators of large urban schools (comparable to middle managers in industry), are a legitimate population for continuing professional self-development. [40] This is consistent with the systems approach to training. It is highly probable that the same basic processes employed by the SCE would be equally as applicable to administrators as to teachers. Therefore, a component of the training system may help the SCE to utilize this same approach with administrators in an urban school. It would seem appropriate for this variation in the role of SCE to be a subject for exploratory work as developmental work continues with the basic role.

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[40] Neal Gross and Robert E. Herriott, Staff Leadership in Public Schools : A Sociological Inquiry, John Wiley & Sons, New York, 1965, pp. 151-60.

B. Alternative Strategies

The basic strategy underlying the selection of program components rests upon a consideration of alternatives available at each of the following levels: the training system, the training agency, the training program, the SCE role, and the teacher or other professional. At each level, choices are made from available alternatives in terms of the operating assumptions made by CERLI. A given selection does not necessarily imply rejection of alternatives; it may be appropriate to make comparative tests of alternative strategies.

1. Strategies for improving career performance of teachers and other professionals:

a. Institutes and classes

Traditional inservice meetings usually consist of institutes of one or two days in length or a series of weekly meetings throughout the school year. Important inputs are made by guest lecturers and curriculum consultants. Response to these events is typically one of great interest but little perceived relevance to the daily tasks of the professional.

b. Innovative models of professional behavior

Traditional inservice training often begins with the introduction of models. Trainees are motivated negatively because of the implicit assumption that past behavior is "wrong." Furthermore, a trainee who lacks goal-orientation at the outset of such a training session will view the new model of professional behavior as an end in itself rather than as a means to an end.

Although the presentation may be highly entertaining and thought provoking, it essentially is unrelated to the immediate concerns of professionals and their spheres of influence.

c. Undergraduate teacher education

Higher education long has been considered one of the most important influences shaping the educator's professional behavior even though its impact comes at a time when the student is an inexperienced pre-professional rather than an experienced professional. Furthermore this education is oriented primarily to the cognitive domain rather than to the affective domain which research has shown to be critical to the learning process. Curriculum, therefore, often has been irrelevant to the learning experiences of different kinds of students. Linkage between theory (represented by the professors) and practice (represented by the pre-professional) has been essentially weak. Also, there is little opportunity for follow-up and evaluation over a longer period of time. The pre-professional does not tend to learn strategies for dealing with unique learning situations.

CERLI, except in an indirect sense, is unable to deal with undergraduate teacher education because of the developmental nature of this work, the internal resistance of colleges of education to outside influence, and lack of personnel. Joint appointments between the laboratory and institutions of higher education eventually may increase these opportunities. Furthermore, CERLI hopes to seriously explore the possibility of the utilization of the training system by colleges of education as user agencies.

d. Individual supervision

Individual supervision (by a principal, department head, or other supervisor) has an important personal touch; but the professional often interprets this personal touch as an infringement upon his professional activities and judgments. Furthermore, individual supervision, which tends to be costly and time-consuming, has limited influence (either in breadth or depth or both), lacks group reinforcement and often results in defensiveness and facade-building. It is recognized that the SCE will often deal with professionals on an individual basis and that there may also be times when a counseling type of relationship is appropriate. The degree to which an SCE should work with participants on an individual or group basis will be resolved through further developmental work.

e. New materials and curricula

New developments are needed and are being undertaken in newer approaches to the learning experiences of students. Examples are curriculum innovations, modular scheduling, functional classroom design, etc. Such activities are appropriately being undertaken by R and D Centers, commercial producers, and school systems. Moving from invention to implementation is a slow process. Changes are made and newer materials are often introduced before assimilation of previously introduced materials is complete. Having materials but not knowing how to use them also increases frustration. Packaged training materials for inservice development could take the form of self-assessment kits or more sophisticated means for giving and receiving feedback to professionals (e.g. video tape, etc).

These materials are being developed and have been helpful when actually used. However, prepared materials of this type have been limited in their application and relevance. It may be demonstrated that auto-instructional systems of this type will work effectively, but their impact will be more powerful if utilized by an SCE. Goal-orientation and group support, even if not needed, would increase the value of these systems. The fact remains, however, that professionals often feel overworked and overburdened with more materials than they are now able to use. Despite these limitations, this kind of developmental effort may be undertaken on an exploratory basis if staff, facilities, and funding are adequate.

f. Summer workshops

Summer has become a popular time for institutes of all kinds, from two to six weeks in length. It is conceivable, however, that summer months might best be used for other purposes such as graduate study or the development of year-round schools. A more obvious criticism of the summer workshop is that it tends to be uneconomical and unrelated to reality. In order to achieve relevance, continuity, and appropriate follow-up, professionals need to practice new behaviors in realistic settings. On the other hand, summers may prove to be a more realistic time for the training of the SCE than for the development of teachers and other professionals in the school.

g. Self-assessment seminars

An examination of these six widely-accepted, traditional methods reveals that, despite their apparent value, they have been disappointing in that they do not emphasize relationships and have not closed the gap between relevant research and significant practice.

Efforts to develop traits associated with outstanding professional behavior have also been largely unsuccessful. Participation in self-assessment seminars establishes relevance to daily tasks and the realities of learning experiences, links research and practice, and increases self-responsibility for one's own professional self-development.

2. Strategies for developing inservice personnel

There are several alternative roles which may be played by a person in charge of inservice programs.

The role of SCE is here contrasted with two significant alternatives:

a. Master teachers

Undoubtedly there is much to be gained from modeling the behavior of professionals who are exceptionally competent. Strategies may be devised for better preparation of traditional master teachers. However, a professional who is simply told or shown what to do often demonstrates resistance, apathy, and anti-organizational creativity.

b. Consultants

The image of a consultant is often that of one who comes in for a limited period of time and then withdraws physically from the scene of action. He represents a non-directive approach which places the entire burden upon the teacher for determining relevance to his own situation. In the sense that the consultant usually represents a right way as opposed to a wrong way to do something, he is authoritative and often functions in an evaluative capacity.

The weakness, however, lies in the lack of follow-up and reinforcement. Furthermore, there is a limited number of problems for which a given consultant may be presumed to have answers.

c. Specialists in continuing education

As presently conceived by CERLI, the SCE is able to provide a wider range of model behavior than simply his own. Being both directive and relevant, he is able to follow up and reinforce the learnings in the seminars. It is expected that future developmental work will determine the degree to which the role of SCE should be directive or authoritative, evaluative, or prescriptive (in the sense of modeling recommended behavior).

3. Strategies for organizing training programs

In general, there are three accepted and widely practiced methods of conducting training programs in education.

a. Credit courses

Additional courses, either at the graduate or undergraduate level, are frequently undertaken on a part time basis or as an exclusive commitment during a leave of absence. It is possible that various content areas of the training program may be assigned to corresponding courses. However it is not likely that the content areas would be coordinated in such a program nor would courses be focused directly on the role of SCE.

b. Inservice training (on the job)

Programs often are conducted in schools during the day or after school hours. They often deal with curriculum content issues and potentially more relevant immediate needs. The pressures of

time and competing obligations or commitments make it difficult to deal dimensionally with the skills necessary to develop complex role behavior.

c. Summer institutes

Some of the summer institute's limitations have already been discussed in strategies for working with teachers. The chief advantages for a training program to develop SCEs lies in the availability of trainees, facilities, and time. There is opportunity for skill training as well as conceptual training and the trainee can become involved in role performance not only as SCE but also in playing the role of a teacher with whom an SCE might work. In a concentrated program, theory and practice can be coordinated and relevance insured not only in the summer institute but in a subsequent follow-up program. It is expected that future developmental work will determine the degree to which a training program may be operated within the context of a school district or a laboratory school and the amount of released time which is necessary to participate meaningfully in a concentrated program.

4. Strategies for utilizing training agencies

CERLI might take at least three approaches to the agencies which will conduct the training program.

a. Become a service agency

CERLI could develop or become a training agency with staff available to work directly with teachers, school districts, and inservice personnel in the development of trained SCEs.

b. Organize a training center

A separate, distinct training center could be organized, possibly

within a college of education. In this way a complete program for the training of SCEs could be maintained and supervised in one location. This plan would require any prospective SCE to attend this training center for his training.

c. Multiple users

A large number of user agencies would seem to provide greater opportunities for wide dissemination of SCE training; but other possibilities will be considered if they prove sufficient to achieve consistency in SCE role performance. Future developmental work may demonstrate that another alternative, possibly a separate training center, may be preferable to working with multiple-user agencies. However, the development of the training system itself must precede the testing of alternatives.

5. Strategies for constructing the training system

The training system which is offered to a user agency may consist exclusively of materials (e.g. pamphlets, outlines, slides, video tapes, etc.), personnel, or possibly a combination of material and human resources. A system consisting only of materials would lack flexibility and the capacity to respond to varying needs of unique situations. It is doubtful that such a system could provide answers to all possible questions pertaining to its use. Furthermore, a system composed only of trained personnel would be unwieldy, difficult to staff, and virtually impossible to make available on a wide basis. Further developmental work will determine the degree to which a linkage of material and human resources will be most feasible.

C. Program Components

The developmental work of Program I is organized into ten major components or work units. The description of each component will include its goals, methods of implementation, expected outputs, and techniques for evaluation. These tasks may run throughout the development of the entire program or they may take only a portion of that time; they may be developed simultaneously, with cross-fertilization ideas, rather than independently. Thus, each and every component can be improved and refined during this developmental process catalyzed by the ongoing input of ideas.

1. Formulation of conceptual base of program

The primary objectives are to provide theoretical undergirdings for Program I, to provide significant inputs into other aspects of development, and to demonstrate the soundness of the program to potential users. Theoretical work also includes relationships with other institutions as sources of conceptual input.

The successful formulation of a conceptual base of Program I should result in the following:

a. Comprehensive review of literature appropriate to the role of SCE and its implementation

b. Established communication with other laboratories and developmental agencies concerning theoretical and experimental aspects of the work

c. Documented conceptual base judged adequate by a review panel

d. Printed monographs on various aspects of Program I for independent circulation or for possible inclusion within a training system

2. Systematic description of the role of SCE

It is necessary to know what the SCE will understand and do in terms of the parameters in which he may function. A systematic description of role behavior will enable the laboratory to develop more appropriate training and to evaluate consistent performance in that role. Revision of the role description would appear to be an ongoing activity based on research literature together with experience in other aspects of developmental work.

An adequate description of the SCE role should manifest the following characteristics:

a. Consistency with relevant theoretical literature, the program of instruction contained in the training system, and the role performance of trained SCEs

b. Acceptability to a panel of experts who review this description

3. Development of the training system

There are four kinds of activities which play a major part in the development of the training system: the determination of a training core, the development of accessory components, development of a support design or follow-up training, and the development of alternatives to components of the program of instruction.

a. Determination and development of a training core (TC)

Some attitudes, knowledge, and skills appear to be common to all SCEs regardless of the environment in which they work or the personnel whom they serve. Other materials may not be a part of this "core" but, depending on local situations, may be unique. Therefore it appears useful to distinguish, if possible, the common from the

unique elements in order to give primary emphasis to central processes used by all SCEs in the performance of their role. This distinction also would help to eliminate unnecessary duplication in various adaptations of the training system.

The successful development of a TC would involve the following:

(1) Detailed comparison of functions of SCEs operating in different environments and with different personnel in seminars

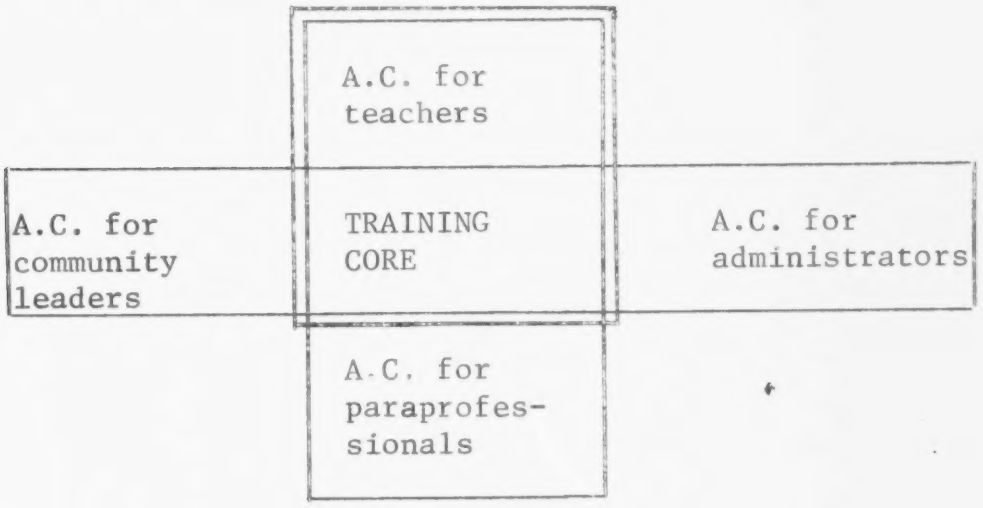
(2) Successful identification of elements common to the role performance of all SCEs

(3) Separate treatment of common elements in the training system distinct from other matters that also may be appropriate parts of the training system

b. Development of accessory components (ACs)

Accessory components would contain elements not incorporated in the training core (TC) but needed in order to carry out the basic program in the TC. ACs may deal with issues such as starting a program in a given system, securing sanction and support of administrators, selection procedures, methods for identifying and recruiting potential SCEs, follow-up training activities, evaluation techniques, and other variations of the role appropriate to different educational environments. ACs would relate the basic TC to various segments of a school such as teachers, administrators, teacher training institutions, community leaders, paraprofessionals, etc. The relationship of ACs to the TC is comparable to the relationship between the spokes and the hub of a wheel in which each spoke is a specific extension of the common hub. A training program

which would enable an SCE to work with teachers would contain both the training core and accessory components relating the training core to teachers. This relationship might be diagrammed schematically as follows:



This analysis suggests a large number of potential instructional programs patterned for different personnel and work environments. At present, the laboratory is primarily concerned with role variations for working with teachers, working with administrators, and working within the context of preservice teacher preparation. With greater resources, CERLI eventually might engage in exploration of other areas.

Within this limitation, the successful development of ACs would result in the following:

(1) Separate packaging of training elements for each area delineated

(2) Successful combination of the TC with one or more ACs in an effective training program

c. Development of a support system or follow-up training

Support systems are concerned with such matters as a design for entry and installation of the role of SCE, periodic phone conferences, a news' letter, weekend institutes, visits from training staff, etc. The objective is to provide inputs to the new SCE from the training agency and from other SCEs functioning in the role. In this way, learnings from the basic training program are reinforced and supported.

Successful development of a support system or follow-up training would include the following:

(1) Determine what kinds of support and follow-up are needed and meaningful for existing SCEs as well as for those just entering the role for the first time.

(2) Build a design for support and follow-up either into the TC or an appropriate AC.

d. Development of alternative instructional strategies

There may be many ways to achieve a given goal for the training of SCEs. It is important to know the relative effectiveness of alternative means in order to provide the widest range of choices in developing program content.

Some of the obvious areas in which alternatives to the experimental POI may be developed are: playing the role of teacher as well as SCE, conducting the seminar, receiving theoretical inputs in a general session, and the development of group skills. In these and in other instances there are training materials which may be substituted for the program of instruction as

originally formulated. Significant experimentation needs to be done in areas of programmed instruction and simulation.

The development of the search area concept is one alternative instructional strategy which has shown unusual promise. It provides resources which trainees can locate, use, and apply to their specific needs. This substantive input helps the trainee to develop new strategies for attaining and changing his goals. Limited experience with this concept has indicated that the utilization of this search area may be a more effective technique than originally anticipated.

Before alternative instructional strategies are included in the training system, they should be:

(1) Tested through micro-experiments

(2) Relevant to trainees and to training objectives

(3) Accepted positively by both staff and trainees

(4) Produced for the training system in complete, usable form

(5) Presented as an alternative way of constructing a training program rather than as the appropriate way

4. Field testing

Field testing, at least in the earlier phases of development, must be conducted by the developmental staff of the laboratory. Ultimately training functions

will be assumed by the user of the training system. However, the early development of the training system itself (which is done in part through field testing) must be conducted by regular developmental staff. This means that training activities in reality represent a playing of the user agency's role. Advantages of field testing by developmental staff are chiefly realism, involvement, utilization of feedback, and visibility for laboratory efforts.

The importance of field testing can be seen in better perspective in four different contexts: the training core, the complete training system, comparative user trials, and user tests of the final product.

a. Training core.

The first field test of an experimental program of instruction was conducted in Charleston, Illinois, during July and August, 1968. Subsequent field tests of a revised program of instruction in urban settings and other field tests will be scheduled as needed. The primary objective is to find out if trainees are able to function in the role of SCE after being exposed to a training program based on the experimental program of instruction. Evaluations of field tests will help to discover whether the program is successful, where it is having problems, what to retain and reject, and also what to include as new input. Repeated collection of evaluative data also suggests revision and implementation of new experimental designs.

Successful field testing of the training core should be recognized by the following:

(1) Successful performance in the SCE role by those trained in a program based on the training core

(2) Use of evaluative data to revise the TC program of instruction based on an understanding of the basic role and the learning of behaviors associated with it

(3) Satisfaction with the training program (including the value and appropriateness of the training) by both staff and trainees and possibly by a review panel

(4) Demonstrated congruence of the TC program of instruction, its impact on the behavior of trained SCEs, and the rationale for the program (e.g. Steele's Analysis of Congruence)

b. Complete training system

The objective is to obtain and field test a complete training system (CTS) that can be user-tested, i.e. conducted without direct assistance from the CERLI developmental staff.

The concept for the CTS will be developed by carefully examining data collected in previous field tests. Previously encountered problems would be assigned either to TC or AC modifications, depending on their anticipated effectiveness in providing workable solutions. ACs probably will deal with problems such as implementation and entry procedures (e.g. selection criteria and procedures, staff training procedures, and instructions for using the TC), evaluation procedures, follow-up procedures, adaptations for special environments and modifications for special personnel. In this step the TC would be modified and ACs devised simultaneously. Likewise, all TC training and support materials would be refined. The TC, combined with one or more ACs, would then be field tested as CTSs to obtain

training data, to determine operational training problems, and to obtain end-products from each variant CTS on which inservice data may be collected.

Successful field testing of CTSs should result in the following:

(1) Fully developed concept of the CTS as composed of a TC plus ACs. This conceptualization should be reviewed and evaluated by an outside panel.

(2) Incorporation of input from evaluations of previous field tests into the revised CTS.

(3) Complete field test of the CTS under controlled conditions.

(4) Collection of data, documentation, evaluation of impact, determination of congruence, etc.

c. Comparative user trials.

The major objective here is to identify specific operational problems not identified in other field testing in user administrations of the CTS. Two or more distinctly different educational agencies will administer the CTS in user trials. A secondary goal is to develop and pilot test publicity materials and to lay further ground work for dissemination of the CTS. These materials will consist of information brochures, demonstration packets, briefing or lecture presentations, and other materials needed to sell the program to potential users. Publicity materials will be field tested. The number of agencies requesting the opportunity to conduct user trials of the CTS will help to determine publicity material effectiveness. Two or more agencies will be selected to conduct the user trials.

These user agencies will field test the CTS and will be observed carefully by CERLI. These user tests will provide operational training data, determine user-related problems, and produce user end-products on which inservice data can be collected. This inservice data will be used to determine the effectiveness of the user-administered CTSs and their end-products. Finally, training and support materials will be given to commercial agencies for production.

Successful trials by comparative users should result in the following:

(1) Production of experimental materials related to dissemination strategy

(2) Evidence of the success of dissemination materials for user recruitment

(3) Collection and analysis of descriptive and evaluative data from two or more user trials, the effectiveness of user-administered CTSs and the effectiveness of the program

(4) Identification of user problems

d. User test of final product

The objective is to obtain operational information that will be specified in the strategies for product dissemination. This will be achieved by observing a user test of the final complete training system. In this field test, CERLI will not consult nor assist the user to deal with problems that arise during the training; developmental staff will merely observe the training and collect operational information. Training

and inservice data resulting from the user test of the final CTS will be collected and analyzed; these data will help to define the final end-product of the CTS and the effectiveness of user training. After completing the project, CERLI will cooperate with the commercial producer in distributing the CTS to user agencies. For users of the product, CERLI will maintain a continuous file on user experiences with the CTS and on the impact of the SCE on educational systems.

Successful field testing of the final CTS would include the following:

(1) Arrangements for a complete test by a representative user

(2) Observation and documentation of the entire use of the CTS by the user

(3) Collaboration with a commercial producer on the acceptance of the CTS and the effectiveness of the end-product

(4) Organized file of user agencies

(5) Relinquishing dissemination to the commercial producer

5. Evaluation

Evaluation is an integral part of developmental work at all levels: the training system and/or its components, training programs and user agencies, the role performance of the SCE, and the professional behavior of seminar participants. Evaluations of user agencies and the final training system cannot be designed until the results of earlier evaluations of SCE behavior

and of participants in self-assessment seminars have been obtained.

a. Professional behavior of seminar participants

Of first importance is an assessment of the impact upon the professional behavior of teachers and others by their participation in self-assessment seminars conducted by the SCE. This is the ultimate criterion for successful performance of the role of SCE. The primary goal is to identify significant changes in teacher behavior as a result of seminar participation. However, the opportunity to conduct the first study of participant behavior under controlled conditions in a college setting also makes it possible to explore the potential institutionalization of the SCE role in pre-service education.

b. Role performance of SCE

Evaluation of the SCE will be directed toward the extent to which he plays the role as described by CERLI together with the degree of excellence in role performance. Evaluation of successful role performance provides a better test of the success of a program of instruction, gives reliable feedback to an SCE in the performance of his tasks, and opens up possibilities for more individualization in the program of instruction. Instruments which distinguish between excellent and a mediocre performance in the role of SCE may then be included in the training system, perhaps as an AC.

c. Training programs and user agencies

d. Training system and/or components

e. Institutionalization of the SCE role

The effects of a training program will find little dissemination within a school system if the SCE cannot function in

his role. Similar developmental work in fields of agriculture and medicine suggests that problems of entry and diffusion are critical to the success of such a project. Therefore a major effort of Program I must be directed toward determining sources of resistance and the means of gaining acceptance of the role of SCE. In any successful program of instruction, this issue must be dealt with even more extensively, possibly in the TC.

A successful beginning in solving the problems of entry and institutionalization will be demonstrated by the following evidence:

a. Reduction of entry problems in school districts participating in field tests

b. Higher percentage of SCE trainees actually functioning in the role of SCE

c. A higher percentage of districts continuing the seminar program beyond the first year or two

d. Determination of which institutionalization strategies are respectively appropriate to the TC and to ACs

7. Selection criteria.

It is possible that some individuals will function better in the role of SCE than others and that some may not function well. For a user agency, selection criteria would be useful for determining who should or should not be included in the training program. If a trainee's potential for functioning in the role of SCE is too low, he may prove to be a disruptive force in a training program with other individuals of higher potential. Likewise, it would be useful to know which teachers or other professionals would participate most

effectively in self-assessment seminars and who would make the most effective trainers whom the user agency might use to conduct the program.

In any of these circumstances, successful development of selection criteria should include the following:

a. Discovery of attitudes, knowledge, and skills which correlate with successful role performance

b. Agreement by a panel of experts on the face validity of selection criteria

c. Successful identification in a field test of those who will perform most well and those who will perform least well

d. Successful prediction of performance of training staff in a user trial

e. Successful prediction of seminar participants who achieve the greatest personal self-development

8. Auxiliary product development

During the early developmental work of Program I, it was felt that there was a need for auxiliary products to enable the SCE to better perform in his role. These products included the Independent Study Model, the Productive Thinking Model, the CERLI Verbal Interaction Classification Matrix, Samplers of Teaching Practices, etc. Auxiliary products are not seen as ends in themselves, but rather as means by which a trained SCE can more effectively conduct self-assessment seminars.

A functional auxiliary product should have the following qualities:

a. Easily learned and used by seminar participants

b. Successfully incorporated into the process

of conducting self-assessment seminars

9. Relationships with cooperating agencies

CERLI needs to expend time and effort in maintaining working relationships with cooperating agencies: these agencies are potential users of the CTS, they provide significant test sites, they are a source for participants in field tests, and they provide significant inputs for conceptualization and revision.

Successful relationships with cooperating agencies may be recognized by the following:

a. Open communication, relating the developmental work of Program I to the agency's needs

b. Availability and use by CERLI of resources and evaluative inputs

10. Program planning and management

The objective of planning and management is to shape the development of the SCE program in terms of goals and basic rationale. In addition to this basic program plan, an earlier, comprehensive five-year plan reflects the rejection of alternatives and the commitment of CERLI to the goals of product development for Program I. Long-range planning and staff development include emphasis on organizational needs of the laboratory, design activities, assessment and development of personnel competencies. Program planning serves to clarify goals, eliminate unnecessary effort and duplication of effort, determine objective criteria for evaluating progress in program development, and give lead time for staff recruitment and development.

Successful program planning and management can be recognized by the following:

a. Coordination of program activities with a basic program plan

b. Evaluation of progress at critical check points by both internal and external resources

c. Recruitment of staff to fulfill personnel needs and the utilization of appropriate adjunct staff

d. Laboratory inservice programs designed for long-range staff development

IV SCHEDULE

IN THIS SECTION, the sequential timing of the program strategy (see Section III) and a budget summary indicating the approximate timetable and estimated costs are presented.

PHASE I: EXPLORATORY DEVELOPMENT

PLAN PROGRAM 1/67

DEFINE SCE ROLE 2/67

ASSEMBLE EXPERIMENTAL TRAINING PROGRAM 3/67

EXPERIMENTAL TRIAL OF SIX-WEEK TRAINING PROGRAM 6/67-7/67
(Appleton, Wis. N=25)

EXPERIMENTS WITH: 8/67
1. Abbreviated two-week training program (Rockford, Ill. N=13)
2. Use of SCE trainees as trainers

FOLLOW-UP CONFERENCE (1 day)
1. Reactions to SCE Role description 9/67
2. Experimental trial of evaluation instruments

SEMINAR AND FOLLOW-UP CONFERENCE 11/67
(5 days, McCormick Creek, Ind. N=20)
1. Determine inservice problems
2. Report progress on materials development
3. Give training in problem solving techniques

SCHOOL ADMINISTRATORS CONFERENCE 11/67
(5 days, Northfield, Ill. N=21)
1. Briefing on SCE role and function
2. Evaluation instruments

COLLECT INSERVICE DATA 9/67-2/68

Devise model of SCE behavior 6/67-9/67

Devise matrix for analysis of SCE behavior 6/67-9/67

Devise instruments to evaluate training 6/67-9/67

Devise matrix to classify verbal interaction of teachers (1st version) 10/67

Devise problem solving techniques 11/67

Devise instrument to sample teacher practices (1st version) 11/67

Devise models of teaching behavior 2/68

PHASE II: CONSTRUCTION OF EXPERIMENTAL PROGRAM OF INSTRUCTION (POI)

REVISE PROGRAM AND REALIGN STAFF	2/68

SYSTEMATIZE DESCRIPTION OF SCE ROLE	3/68
1. Analyze inservice data	
2. Classify specific behaviors	

ASSEMBLE EXPERIMENTAL POI	4/68-6/68
1. Describe attitudes, knowledge and skills to be communicated	
2. Outline support materials (including development of "Search area" concept)	
3. Organize training program for pilot test	
4. Plan initial evaluation procedures	

PHASE III. FEASIBILITY TESTING

PILOT TEST OF EXPERIMENTAL POI
1. Pilot test at Charleston, Ill. (7/68-8/68); in an urban setting, revised POI (1/69-2/69); others as needed
2. Revision and implementation of experimental design
3. Collection of evaluative data

COMPONENT DESIGN, DEFINITION OF TC AND ACs, TESTING OF ALTERNATE STRATEGIES, EVALUATION, REVISION AND EDITING OF POI

FOLLOW-UP, DATA COLLECTION,
EVALUATION OF FIELD TEST PARTICIPANTS 9/68-6/69

AUXILIARY PRODUCT DEVELOPMENT (such as independent study model, productive thinking model, CVC verbal interaction matrix, samplers of teacher practices)

DEVELOPMENT AND REVISION OF CONCEPTUAL BASE
(including relations with other institutions as sources of conceptual input)

MAINTAINING AND EXTENDING
RELATIONS WITH COOPERATING AGENCIES

1. Evaluative study of effects of seminar participation
2. Exploratory development of pre-service teacher training accessory component
Wheaton College 9/68-6/69

1. Exploratory development of administrators' AC 1/69
2. Exploratory development of urban teachers' AC

PROGRAM MANAGEMENT

LONG RANGE PLANNING AND STAFF DEVELOPMENT

PHASE IV: FIELD TEST OF COMPLETE TRAINING SYSTEM

REFINE TRAINING SYSTEM CONCEPT 9/69-12/69
1. Analyze data from previous phases and identify problems
2. Assign solutions to TC or to ACs

MODIFY TC AND DEVELOP TRAINING MATERIALS
1. Incorporate findings from pilot tests
2. Provide solutions to overall system problems
12/69-6/70

DEVISE ACCESSORY COMPONENTS
1. Implementation and Entry Elements
   a. Selection criteria
   b. Staff training procedures
   c. User guidelines
2. Evaluation procedures
3. Follow-up procedures
4. Adaptations for urban, rural, and other special environments
5. Adaptations for special personnel
6. Teacher information and publicity kits
7. Others as needed
12/69-6/70

DEVISE EVALUATION COMPONENTS FOR COMPLETE TRAINING SYSTEM

PILOT TEST COMPLETE TRAINING SYSTEM
1. Obtain data on various combinations of the TC and selected elements of ACs
2. Determine operational problems
3. Obtain end products on which inservice data may be collected
6/70-8/70

ANALYZE PILOT TEST DATA TO:
1. Define end-products of complete training systems tested
2. Determine effectiveness of various training systems
3. Assess effectiveness of evaluation components 9/70

COLLECT INSERVICE DATA 9/70-12/70

ANALYZE INSERVICE DATA
1. Determine effectiveness of various end-products and complete training systems
2. Decide whether to repeat parts of this phase or begin the next phase 12/70-3/71

PHASE V: COMPARATIVE USER TRIALS

INCORPORATE FINDINGS 3/71-5/71
OF PREVIOUS PHASE INTO TRAINING SYSTEM

DEVISE PUBLICITY MATERIALS 6/71
1. Write information brochures
2. Assemble demonstration packets
3. Develop lecture presentations
4. Others as needed

1. PILOT TEST publicity materials
2. Receive requests from outside agencies to conduct training and implement training system
3. Select two or more agencies to conduct user-trials of training system

7/71

OBSERVE AND CONSULT WITH AGENCIES
CONDUCTING USER-TRIALS
1. Obtain training data
2. Determine user-related problems
3. Obtain user end-products to produce inservice data

7/71-9/71

ANALYZE TRAINING DATA
1. Define user end-products
2. Determine effectiveness of user training

9/71-11/71

COLLECT INSERVICE DATA 11/71-5/72

ANALYZE INSERVICE DATA
1. Effectiveness of user end-products
2. Effectiveness of complete training systems 5/72-9/72

COMMERCIAL AGENCIES INVOLVED
IN PRODUCTION OF DEVELOPED MATERIALS

PHASE VI: USER TEST OF FINAL PRODUCT

FINALIZE COMPLETE TRAINING SYSTEM 9/72-12/72
SELECT ONE AGENCY TO CONDUCT USER TEST OF FINAL TRAINING SYSTEM 12/72-1/73
OBSERVE CONDUCT OF FINAL TEST 1/73-3/73 1. Obtain operational training information 2. Obtain user end-product information
ANALYZE TRAINING DATA 3/73-5/73 1. Define user end-product 2. Define effectiveness of user training
COLLECT INSERVICE DATA 6/73
ANALYZE INSERVICE DATA to determine overall effectiveness of user end-product and of final training system 6/73-9/73
PREPARE REPORT ON FINAL COMPLETE TRAINING SYSTEM 1. Describe concepts, components, implementation procedures, and problems 2. Specify end-product effectiveness and expected impact 9/73-3/74
COLLABORATION WITH COMMERCIAL PRODUCER
COLLECT AND MAINTAIN USER FILE ON problems and user modifications of training system (information to be made available to all prior and prospective users)

BUDGET SUMMARY

	Phase III 7-1-68 to 8-31-69 + one additional month	Phase IV 9-1-69 to 2-28-71 + one additional month	Phase V 3-1-71 to 8-31-72	Phase VI 9-1-72 to 2-28-74
1. Personnel Compensation				
a. Salary and Wages	$198,000.00	$347,500.00	$439,000.00	$512,000.00
b. Personnel Benefits	35,300.00	62,000.00	78,400.00	91,000.00
c. Consultant Fees	7,000.00	12,400.00	16,000.00	18,300.00
2. Transportation and Per Diem	21,200.00	37,200.00	47,000.00	55,000.00
3. Rent and Utilities	17,600.00	31,000.00	39,200.00	46,000.00
4. Communications	7,000.00	12,400.00	16,000.00	18,000.00
5. Printing, Publishing and Materials Production	7,000.00	12,400.00	16,000.00	18,000.00
6. Other Services				
a. Equipment	1,000.00	1,500.00	2,000.00	2,000.00
b. Data Processing	3,500.00	6,200.00	8,000.00	10,000.00
c. Subcontracts	35,400.00	62,000.00	78,000.00	91,400.00
d. Other	7,000.00	12,400.00	31,300.00	36,500.00
7. Supplies	14,000.00	25,000.00	16,000.00	18,000.00
TOTAL	$354,000.00	$622,000.00	$786,900.00	$916,200.00

Time periods indicated are based upon optimal development of all steps within the phase. Other than optimal progress may extend the duration or necessitate the repetition of phases. The one additional month is needed to collect and analyze the inservice data after the next phase has begun.

APPENDIX: HISTORICAL BACKGROUND

During the first year and a half of Program I, the CERLI staff concentrated on two major kinds of developmental effort: exploratory development and construction of the experimental program of instruction (POI).

The following historical background is presented to provide a contextual basis for understanding the present program plan.

I. EXPLORATORY DEVELOPMENT

The purposes were to plan the project, initially define the role of SCE, gain experience, and devise auxilliary products considered crucial to future developmental work. Representatives of a number of cooperating agencies in the region met with the CERLI staff to achieve a preliminary definition of the role of SCE and to plan exploratory activities.

These discussions culminated in a trial program for the training of SCEs held in Appleton, Wisconsin, June-July, 1967. During August, 1967, an abbreviated training program was conducted in Rockford, Illinois, for 13 trainees; and some of the trainees from the Appleton program were used as trainers in the abbreviated program. In September, participants in the trial training programs were invited to a one day conference so that CERLI could obtain their reactions to the SCE role definition and conduct an experimental trial of evaluation instruments. In November, 20 of these participants attended a five day conference at McCormick Creek, Indiana, which focused on inservice problems, recent developmental work in the laboratory, and training in problem solving techniques. During the same month, 21 school administrators were invited to a conference in Northfield, Illinois, for a briefing on the role of SCE and administering evaluation instruments.

Throughout the school year, CERLI assisted in the collection of inservice data and organized a monthly phone conference of all participants and staff in the original trial programs.

During this phase of development, the laboratory also engaged in

auxilliary product development related to program components. These efforts resulted in the preliminary development of a model of SCE behavior, a behavior classification system for evaluating SCE behavior, instruments for evaluating the TC, the first version of a CERLI matrix to classify verbal behavior, problem solving techniques, instruments to sample teacher practices, and models of teaching behavior.

Follow-up data were collected through conferences, tests, and an extensive series of interviews with each SCE. Of the 21 Appleton participants, 13 conducted seminars during the school year 1967-68. Of the remaining eight participants, six (due to prior commitments) had no intention of functioning as an SCE. Three participants were graduate students who attended the training as part of their educational experience. One of these students did function in the SCE role, but the other two did not. Another participant, who had not intended to function, actually did initiate the seminar activity in his school system. Among the 21 participants who were expected to act as SCEs, 13 did conduct one or more seminars during the school year.

Nine of the functioning SCEs were interviewed to obtain information regarding their experience in the role. Six were performing in a manner similar to the ideal role description. The remaining three had modified the program to accommodate other existing programs or the facilities available in their own school districts. With one exception, each of the nine persons interviewed was conducting two or more seminars. The fact that two SCEs were in charge of several other persons who conducted seminars inflated the number of seminars conducted by these two.

Seminars ranged from one to five hours in length with a typical time being two hours. The five hour seminar was a concentrated program involving twenty hours of seminar participation in a single week. Most SCEs attempted to conduct seminars so that approximately 32 seminar hours would be involved in the overall training.

The number of schools in which an SCE functioned differed according to the area in which the seminars were held. SCEs tended to operate exclusively within a single school or in three or more schools. Whether a school district independently supported the project or whether it was conducted through an outside agency (e.g. a Title III Cooperative) in the district probably determines the number of schools involved with one SCE.

Only two of nine SCEs had not obtained released time for teachers participating in seminars. Some programs offered academic or school board credit for participation.

With two exceptions, each of the SCEs had responsibilities in addition to being an SCE. At the other extreme was an SCE whose official duties with a demonstration program occupied one-hundred percent of his time. SCEs generally spent at least fifty percent of their time involved in other activities.

Preliminary entry into the schools was accomplished in a number of ways. Nearly all the SCEs initially contacted administrators and obtained actual assistance on entry problems or a supportive acceptance of the program. Three sent out a letter or flyer explaining the

program and asking for volunteers; four used a questionnaire either to gain interest or to select participants; and three used prepared materials to explain the program.

The nine persons interviewed were asked to state which of the techniques obtained from CERLI had been used in their seminars. Since this exercise required a past recall, it is possible that the responses did not adequately represent all of the techniques used. All but one used the CERLI matrix. Six used video or audio tapes. Five used the problem solving technique developed at McCormick Creek and one of these persons tended to use this technique almost exclusively. Five used questionnaires either as a self-assessment technique or a method of selection. Five provided books (Mager's PREPARING INSTRUCTIONAL OBJECTIVES was used most frequently) or other reading material. Four used sensitivity training or a simulated self-assessment experience that was similar to sensitivity training, either in connection with seminars or in other school settings. Four used models from CERLI or films on educational practice. Others utilized techniques including role playing, group observation of different individuals conducting a class, and individual consulting. It is significant to note that in most cases SCE behavior was modeled after the behavior of CERLI staff members with whom participants had worked in their training program.

SCEs were asked to state the problems they had encountered in seminars. Obtaining released time for teachers was the only problem consistently cited by five SCEs. At least two expressed each of the following problems: lack of time, the need for more content, faulty equipment,

teachers' resistance, and the possibility that the program might not be continued the following year. Others stated problems specific to their own situations such as the lack of staff training or the problem of a principal forcing certain teachers to participate in one group. When asked what was the hardest part of being an SCE, four of the nine said that the main problem was to avoid being directive or "authoritative" in approach. One questioned the idea of the entire program, and another felt a strong need for support from CERLI.

When asked concerning needs from CERLI, there was a relatively consistent response from the SCEs. Seven expressed a need for more models and other products promised by the laboratory. All requested in-person visits and six mentioned a need for seminar visits and critiques. All except one felt the need for additional sensitivity training. Eight expressed the desirability of conferences such as the one held at McCormick Creek. In general, there appeared to be the need for more support and personal contact from the CERLI staff.

Exploratory development in Program I culminated in four specific accomplishments:

A. Data were collected about the strengths and deficiencies of a training program, seminar practices, SCE role behavior, selection procedures, the relationship of follow-up activities to a six-week program, the inadequacies of a two-week abbreviated program, problems encountered by SCEs functioning in the role, the value of auxilliary products, and needs for laboratory staffing.

B. Staff gained experience with training programs, participant recruitment, cooperation with educational agencies, and methods of evaluation.

C. Trial versions of auxilliary products were developed.

D. A comprehensive five year plan, reflecting the rejection of alternate strategies and the commitment of CERLI to the goals of product development for Program I, was drafted.

II. CONSTRUCTION OF THE EXPERIMENTAL PROGRAM OF INSTRUCTION

Following a revision of program plans and a realignment of staff, developmental activities then encompassed a systematic description of SCE role behavior and the assembly of an experimental program of instruction (POI). This POI consisted of training for the basic role of SCE together with modifications that adapted the role to working with teachers. These activities were based on substantial inputs from previously collected data. The complete experimental program of instruction and expanded training schedule of daily activities are represented in the following condensation.

A. Training activities.

The following activities, selected as appropriate for communicating the POI, may typify contents to be found in the final training system. Techniques chosen for the first pilot test of the experimental POI included lecture, use of consultants, practice in the seminar,

books (Mager, Festinger, Jersild, etc.), search area materials, simulation or demonstration, audio-video equipment (films, video tapes, etc.) role playing, buzz groups, printed handout materials, sensitivity training, individual consultation with staff members, brainstorming, and programmed instruction. One of the most important considerations in the selection of training activities was the impression that the training staff must model the behavior which was designed to be taught in the POI.

B. Content.

The attitudes, knowledge, and skills to be communicated were organized into seven instructional units which were distributed throughout the six-week program.

1. Orientation

The purpose is to give a general explanation of what the program will entail so that participants will know what to expect, to acquaint staff with participants so that they may formulate balanced work and sensitivity teams, and to facilitate the entry of participants into team activities.

a. Identify staff

b. Identify each other

c. Overview of program and schedule

d. Purpose of training agency

e. Purpose of developmental agency (will be deleted after the work of the developmental agency is completed)

f. Team formation

g. Explanation of feedback device

h. Explanation of content options

i. Acceptance of individual responsibility to the team

j. Acceptance of individual responsibility to team activities

2. Goal establishment methodology

This refers to the process of stating expected learner outcomes in behavioral terms. Goal establishment methodology is based on the assumption that it is sound practice to know what the learning process should achieve before commending the actual process.

a. Recognize and identify a behaviorally stated goal

b. State behavioral goals for his own operating situation

c. Recognize, identify, and use systems which are valid and relevant for ascertaining stated goals

d. Instruct others in operationalizing goals

3. Data collection methodology

This refers to the operation of securing objective information about a particular behavior. By using data collection and interpretation, the SCE helps the professional assess his effectiveness in relation to his stated goals.

a. Understand designing of research problems

b. Familiarity with evaluation instruments (identifying components of each,

comparing instruments, and selecting appropriate instruments)

c. Design new instruments as required

d. Teach data collection and instrument development

e. Willingness to use data collection methodology

f. Why and how to use equipment for collection of data

4. Confrontation

This refers to self-encounter which brings one face-to-face with an internalized goal-data relationship. There is often a difference between what a teacher wants to do and what he does. Whenever a teacher develops operational goals and receives reliable data concerning the attainment of those goals, he may perceive a similarity or congruence between the goal (ideal) and the data (actual), or he may perceive a conflict or discrepancy. In the seminar, the SCE must create a supportive atmosphere where this self-confrontation and the setting of possible new professional goals or behaviors can occur.

a. Encourages continuous self-evaluation

b. Confrontation theory and dissonance theory

c. Utilize group resources in support of self-confrontation

d. Constructive attitude--the helping relationship

e. Collaborative rather than authoritative attitude

5. Resource methodology

Resource methodology is used by the SCE to provide the professional with substantive input for new behavior.

a. Acceptance of "search area" concept

b. Non-authoritarian presentation of resources in seminar

c. Locate, secure, adapt, and make available relevant material and human resources and have professionals do the same.

d. Awareness of a resource knowledge base

e. Understand search area concept

6. Group functioning

According to Cartwright and Zander, "A group is a collection of individuals who have relations to one another that make them inter-dependent to some degree".[41] The group is the vehicle by means of which all of the SCE's activities provide the environmental support system conducive to all other interaction.

a. Have the attitude that working and interacting with people, especially in groups, is rewarding work.

b. Possess the attitude that collective strength is generally greater than individual strength in

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[41]Dorwin Cartwright & Alvin Zander, Group Dynamics: Research and Theory, Harper and Row Publishers, New York, 1968, p. 46.

creating change within the individual.

c. Possess the attitude that individuals in the group will benefit from group interaction and the SCE will actively work toward that goal.

d. Possess the attitude that professional growth is possible and feasible and more lasting through group interaction.

e. Understand the origins of groups, the nature of group membership, structural properties of groups, communication patterns within groups, motivational processes in groups, and leadership functions and styles within groups.

f. Have the skills and abilities to apply the above knowledge to the seminar.

7. Administrative methodology

This refers to the totality of skills required to implement and maintain functional inservice seminar programs within an educational setting. The objective is to provide the managerial framework within which the SCE will gain entry to an educational system and implement his inservice program.

a. Gaining entry to a school system and securing administrative support (understanding and acceptance) for inservice program

b. Scheduling of time, space, material, and personnel

c. Gaining of community acceptance

d. Recruitment of professionals for the program

e. Maintaining active and open communication with training agencies and other SCEs

F. Support CERLI in development of the training system (will be deleted after the work of the developmental agency is completed).

C. Typical daily schedule

The sequence of learning experiences was organized into a daily schedule which contained an outline of activities for each day during the six-week training program. A typical daily schedule would be as follows:

8:00 -	9:45 a.m.	Teaching, planning, search area
9:45 -	10:00 a.m.	Coffee break
10:00 -	12:00 a.m.	Seminar and critique of seminar by staff member
12:00 -	1:00 p.m.	Lunch
1:00 -	1:20 p.m.	Data Collection
1:30 -	3:00 p.m.	General Session
3:00 -	5:00 p.m.	Search area
5:00 -	7:00 p.m.	Dinner
7:00 -	9:30 p.m.	T-Groups

D. Plan for initial evaluation procedure

The procedures designed for evaluating the first pilot test of the experimental POI are intended to determine the relationship between objectives of the POI and the SCE's performance in terms of immediate and long-range impact and to derive information for improving the immediate and long-range effectiveness of the POI in achieving its intended objectives. The following procedures were designed:

1. Documentation of the program as actually carried out to determine what happened together with any discrepancies between the intended and the actual program.

2. Record of training alternatives (things that could have been done but were not) that became evident during the course of the pilot test. This record of things that could be done and of things that were tried that should definitely not be repeated will generate variables for future pilot tests.

3. Immediate impact of the program will be determined by comparing trainee performance on a battery of criteria administered on day one of training with performance on these same criteria on day 27 of the training program. These criteria are:

a. An instrument that samples knowledge concerning the substantive content of the program.

b. An instrument that assesses attitude toward educational phenomena, change processes, evaluation and use of objective data in decision making, and personality variables (such as personality structuring, social relations, competitiveness, spontaneity, sensitivity to others, risk taking and related characteristics).

c. Performance test recorded on video tape in which the trainee assumes the SCE role to help a teacher (role played by a staff member) find a solution to a likely classroom problem. The staff member playing the teacher role carefully guides the discussion, without direct

references, to provide occasion for the trainee to display his behavior in relation to the major behavioral objectives of the program.

d. An open-ended, written instrument that presents a classroom problem and provides the trainee with a second opportunity to project his behavior as an inservice leader assisting a teacher. The instrument focuses on determining trainee ability to state operational goals, to determine success in achieving goals, to select appropriate resources, and to communicate with peers.

e. A sociometric analysis of the communication patterns within the trainee group as of the end of the first week of training (after the trainees have had an opportunity to become acquainted) and again as of the end of the program. This analysis will relate the development of communication links and opinion leadership to demographic variables and to attitudes specific to educational innovations, change process, and risk taking. This analysis is being conducted under CERLI's sub-contract with the Illinois Institute of Technology.

f. An instrument that collects staff and trainee reactions at the end of the training experience. This will include subjective reactions (in the form of ratings or judgments) to various aspects of the program.

4. The long-range impact will be determined by

comparing pre-entry data from one or more schools in which trainees will function as leaders with post-entry data collected at three-month and nine-month intervals after entry, on the following criteria.

a. Trainee responses on the instruments used in the evaluation of immediate impact

b. Sociometric analysis of the communication patterns of school teachers and administrators to determine the impact of SCE functions on the communications patterns, opinion leadership, and attitude toward innovation on the school and its administrative structure

c. Objective, actuarial information about the functioning of the SCE in terms of number of seminars held, frequency of seminars, number of teachers involved in seminars, reasons for seminar participant involvement, reasons for repeat involvement, reasons for non-repeat involvement, and number and type of innovations introduced

d. Additional desirable criteria will be used as they are developed such as the impact of the program on students' attitudes towards teachers, classroom performance, and attitudes toward education together with a possible time and motion analysis of the SCE's behavior.

This phase of Program I may be summarized by the following four accomplishments:

A. The assembled POI consisting of an extensive description of the attitudes, knowledge, and skills to be learned in the training program together with a detailed daily schedule of training

events and activities.

B. Inclusion of the "search area" concept. The search area concept involves the development and exploration of resources pertaining to the training program. In the search area, professionals may find a variety of materials, source guides, and a list of available resource personnel. Professionals in the training program not only are encouraged to use these substantive inputs but are urged to contribute other auxilliary materials as they locate and develop them.

C. Preparation of data collection instruments and methodologies for the historical document and first evaluation of an experimental POI.

D. Recruitment of four new staff members whose skills in conceptualizing, training, and writing augment the staff of Program I.